DOCUMENT RESUME

ED 204 974 EC 133 545

AUTHOR	Sheeley, Eugene C.: McQuiddy, Doris
TITLE	Steps Toward Effective Production of Speech (STEPS): No. 2--Words and Meanings: The Problem of Deaf-Blindness.
INSTITUTION	Alabama Univ., Tuscaloosa.: Partlow State School, Tuscaloosa, Ala.
SPONS AGENCY	Bureau of Education for the Handicapped (DHEW/OE), Washington, D.C.
PUB DATE	80
NOTE	57p.: For related document, see EC 133 544.
AVAILABLE FROM	Southeast Regional Center for Deaf-Blind Children, P.O. Box 698, Talladega, AL 35160 (Free).
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Auditory Tests: *Deaf Blind: Hearing (Physiology): Vision: Vision Tests

ABSTRACT

The booklet, another in a series for parents of deaf blind children, presents information in large type about the nature and cause of deaf blindness. A drawing of the ear is followed by a simplified discussion of the ear's functioning and definitions of terms (such as spondee threshold) used in hearing testing and hearing loss. Similarly, a drawing of the eye is followed by a discussion of eye functioning and an explanation of terms used in vision testing and vision loss. Related problems are then defined, followed by a more complex glossary. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

WORDS AND MEANINGS
The Problem of Deaf-Blindness

#2

ED204974

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.



"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

John W Crawley

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Speech

Production of

Effective

Toward

Steps

STEPS

EC 133545

Steps Toward Effective Production of Speech (STEPS) A Set of Booklets for Parents of Deaf-Blind Children

Eugene C. Sheeley
Doris McQuiddy

The University of Alabama —
Department of
Communicative Disorders
Area of Special Education
Partlow State School and Hospital
1980

HOW TO USE THIS BOOKLET

This booklet has a list of words and their meanings. It is to help people understand more about hearing loss and vision loss.

When you come across a new word, make a note of it. Then try to find out what it means by looking it up here.

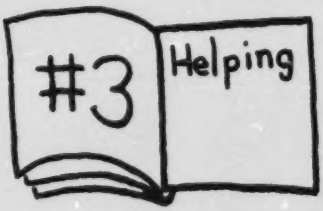
1. Turn to pages 27 to 52. Words in **dark print** are listed in alphabetical order. A short meaning follows most words.

2. If a page number is given, turn to that page for the meaning of the word.

Words in *light print* can be looked up on pages 27 to 52.



This booklet has to do with hearing loss and vision loss. It is also about causes and problems. The next page tells where to find things in the book.



Booklet number 3 has more words and is called "Words and Meanings: Helping the Deaf-Blind Child." It has to do with these subjects.

People	Vision Aids
Programs	Other Aids
Treatments	Training
Hearing Aids	Teaching

WHERE TO FIND IT

THE EAR

Drawing of the Ear 4
How the Ear Works 5
Hearing Testing 7
Hearing Loss 10

THE EYE

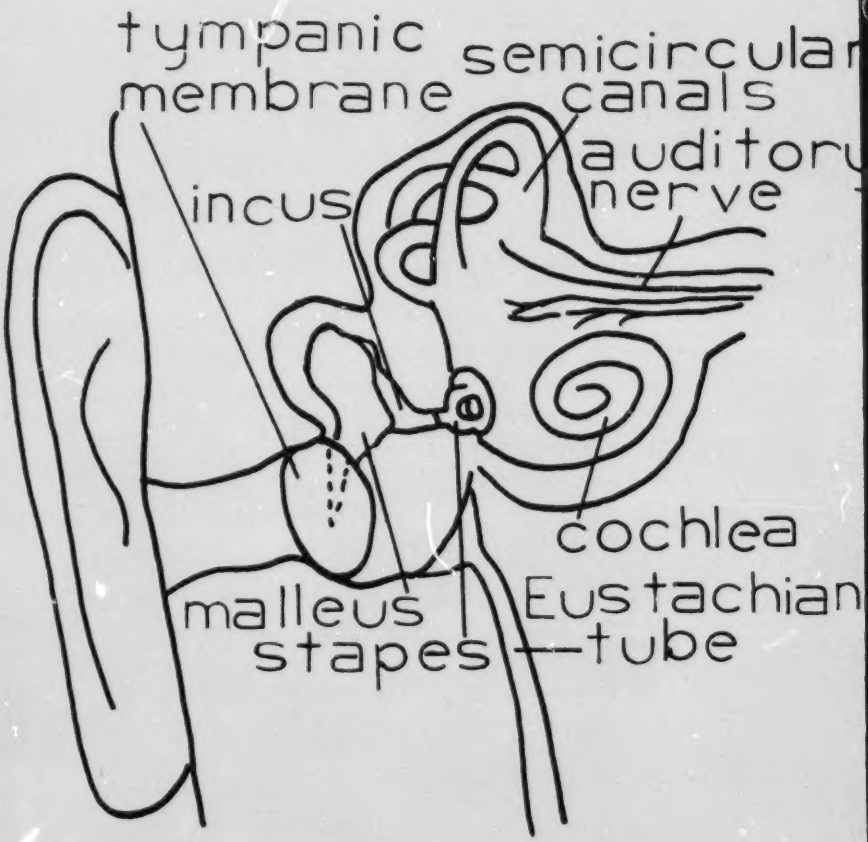
Drawing of the Eye 12
How the Eye Works 13
Vision Testing 15
Vision Loss 18

CAUSES OF PROBLEMS 21

RELATED PROBLEMS 25

ALL THE WORDS IN THIS BOOKLET 27

DRAWING OF THE EAR



HOW THE EAR WORKS

When you say a word, your voice makes the air move back and forth. This movement carries the sound of your voice through the air and into the ear. The sound travels through the ear canal about one inch. Then it hits the *eardrum.* This causes the drum, or *tympanic membrane,* to move. It is connected to three tiny bones which then begin to move. The bones are called the *malleus, incus,* and *stapes.*

Your *middle ear,* where the tiny bones are found , is filled with air. The air gets in through a tube which opens in the back of the throat. When your ears pop as you come down in an airplane, air is going through your *Eustachian tube* into the middle ear. The

middle ear must be filled with air in order to work best.

The bones in the middle ear carry the sound to your inner ear. One part of the *inner ear* is called the *cochlea* and has to do with hearing. The other part of your inner ear, the *semicircular canals*, has to do with the sense of balance.

The liquid in your cochlea affects the hair cells that are there. Then the hair cells affect the nerve of hearing, the *auditory nerve*. This nerve sends the sound to your brain.



HEARING TESTING

audiogram The chart of a person's ability to hear sounds. The sounds are *pure tones* which range from low to high pitches.

audiometer A machine that measures how much a person can hear.

discomfort level The loudness of a sound that is unpleasant to listen to. A low discomfort level means that many sounds may be too loud through a hearing aid.

discrimination The ability to understand speech when it is loud enough. Poor discrimination means that speech will not be clear even with a hearing aid.

immitance audiometry A test of how well the *middle ear* works. The test may also give a rough idea of the amount of hearing. Immittance audiometry includes the *tympanogram* and *acoustic reflex threshold.*

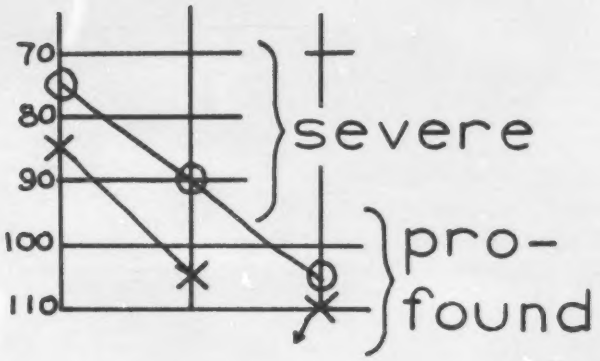
impedance audiometry A test of how well the *middle ear* works. (Same as immittance audiometry above.)

middle ear pressure The amount of air in the *middle ear.* The air pressure is measured by *immittance audiometry.* Too little air may mean a problem that needs medical care.

play audiometry A test of hearing that is carried out like a game. The person may drop a block every time he hears a sound. There are many other ways in which the hearing test can be made like a game.

pure tone A clear musical note something like a note on the piano. Pure tones are used in testing hearing. The pure-tone test tells how well the ear hears different pitches.

spondee threshold (ST; or speech reception threshold, SRT) The loudness of speech when a person can just understand half of it. Word like "airplane" and "baseball" are used. This test tells how loud a speaker must talk to be understood.



HEARING LOSS

mild loss of hearing A loss of about 25 to 45 dB (*decibels*). A person may have trouble hearing speech from across the room. He may also have trouble hearing speech from another room. A hearing aid may help if the loss is near 45 dB.

moderate loss of hearing A loss of about 45 to 70 dB (*decibels*). A person may have trouble hearing speech three feet away. Often a whisper cannot be heard. Noise may make speech

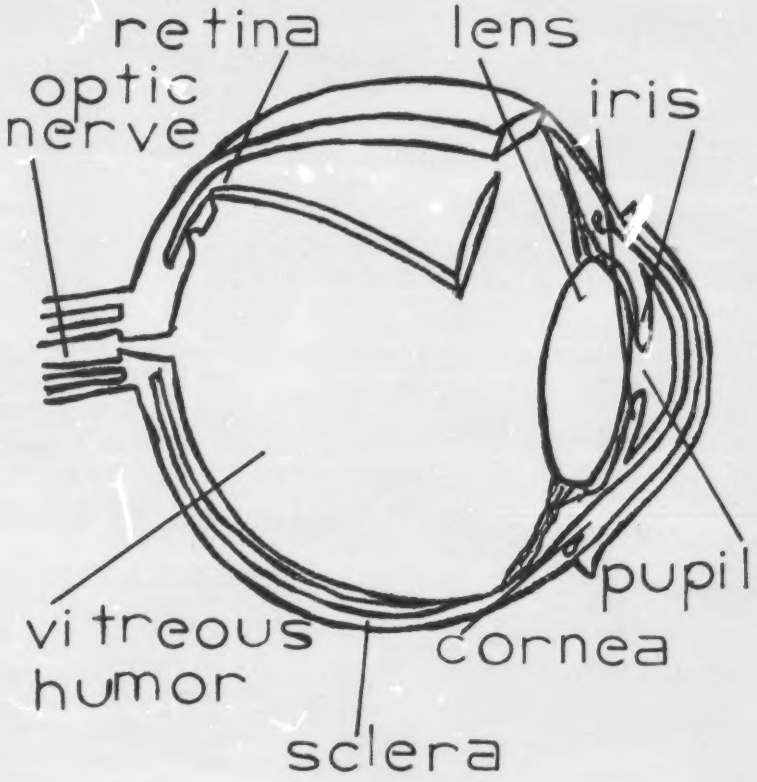
very hard to understand. A person with a moderate loss is likely to get the most help from a hearing aid.

severe loss of hearing A loss of about 70 to 95 dB *(decibels).* A person will not hear unless you speak loudly or talk in his ear. A hearing aid is likely to give a lot of help.

profound loss of hearing A loss of about 95 dB *(decibels)* or more. A person may hear loud speech one inch from the ear or no speech at all. A hearing aid may give help. (The larger the number of decibels, the greater the loss.)

NOTE: An audiologist can tell you when a hearing aid should be used.

DRAWING OF THE EYE



HOW THE EYE WORKS

Your eyeball is a globe with a tough white cover. The cover is called the *sclera,* or white of the eye, and keeps light out. At the front of the eyeball the cover becomes thin and clear. This part is called the *cornea* and it lets light into your eye.

The opening where the light enters is called the *pupil.* It is the black center of the eye. The colored ring around the pupil is the *iris.* (A blue-eyed person has a blue iris.) The muscles of the iris let the proper amount of light into your eye.

Just behind the iris is the *lens.* It has muscles that change its shape. These changes are called *accommodation.* This lets you see

an object clearly, no matter if it is near or far.

The eyeball is filled mostly with *vitreous humor* which is like clear gelatin. Light passes through it and strikes the *retina* on the inside walls of the eyeball. The retina has millions of tiny cells called *rods* and *cones.*

The rods let you (1) see in dim light and (2) see things to the side. The cones let you (1) see in bright light, (2) see color, and (3) see things you are looking straight at.

The rods and cones affect the nerve of vision, the *optic nerve.* The nerve carries the sight to the brain.



VISION TESTING

Three different tests can be used to tell how well a person sees close up and far away. In each test the first line or row is largest and easiest to see. The lines below get smaller and smaller. These tests are called (1) the Apple, House, Umbrella Symbol Vision Test, (2) the E symbol test, and (3) the Snellen test. They are described on the next 2 pages.

Apple, House, Umbrella Symbol Vision Test A test for someone who does not know the alphabet. It uses three drawings like the ones on page 15. A person holds up or points to a picture like the one he sees. Or he may say the name or make the sign. (This is sometimes called the Preschool Flashcard Test.)

E symbol test Another vision test for people who don't know the alphabet. It uses the letter E turned four different ways like the ones below. A person points in the direction the "legs" of the E are pointing. (This test is also called the *pointing E test* or the *tumbling E test.)*



Snellen test A test for a person who knows the letters of the alphabet. He names the smallest letters that he can read. This is the test that is usually given to school children. It is also given to someone who applies for a driver's license.

---

glaucoma test A check of the pressure inside the eyeball. The machine which does the test is called a tonometer. Normal pressure is 13 to 22.

ophthalmoscopic examination This is not really a test. But it is a careful look at the eye. This is done by shining a light through the *pupil* into the eyeball. The device used to inspect the eye is called an *ophthalmoscope.*



VISION LOSS

The table inside the back cover lists some words for loss of vision. Words like *blind* and *legally blind* have more than one meaning. For this reason they are listed in two different columns. Many words in the table are below and on the next two pages.

low vision The loss of some sight even with glasses. A person with low vision still has good usable sight.

visually impaired The loss of some sight even with glasses.

partially sighted The loss of some vision even with glasses. A partially sighted child can use vision as his main way to learn. Vision with glasses is from 20/70 down to 20/200. (Partially sighted is sometimes used as a legal term.)

blind A little bit of sight or no sight at all even with glasses. A blind person may have some vision left. But it is of no real value.

legally blind In most of the USA and in some other countries this means (1) with glasses a person has *visual acuity of 20/200* or less. Or it means (2) a person has a *visual field of 20 degrees* or less.

object perception Enough vision to see the outlines of objects. But no vision for the details of objects.

light projection Enough sight to tell where a light is.

light perception Enough sight to tell whether it is dark or light. A person with light perception can tell when a light is on. But he cannot tell where the light is.

totally blind No vision at all, not even with glasses.

visual acuity of 20/200 A very severe loss of sight. A person with this loss of vision is *legally blind.* He sees an object 20 feet away as well as a normal person sees it 200 feet away.

visual field of 20 degrees (20°) A very severe loss of

sight. A person with this loss sees only what he is looking straight at. He cannot see above, or below, or to the sides. A person with this loss of vision is *legally blind.*



CAUSES OF PROBLEMS

cataract This is a problem with the *lens* of the eye. All or part of the lens is cloudy. As a result not enough light enters the eye. Surgery may be advised.

CMV (cytomegalovirus infection or cytomegalic inclusion disease) An infection that can cause severe damage to the newborn. It can cause fever, *inflammation* of the liver, damage to the brain, and *chorioretinitis.*

congenital syphilis A disease caught by a baby before birth when the mother is infected. It may damage the blood and nervous systems.

German measles This illness is also called *rubella.* If a mother catches it during her first three months of pregnancy, her baby may be deaf and blind. The blindness may be due to *cataracts* or *glaucoma.*

glaucoma This is a disease of the eye. Too much pressure builds up inside the eye; the pressure can cause a vision

problem. A doctor's care is needed.

heredity The way in which size, color, and other qualities are passed from parent to child. In this way problems like deafness and blindness may be passed along in families.

meningitis A disease that affects the lining that covers the brain. It can damage the eyes, ears, and brain.

otitis A problem in the ear canal or *middle ear.* There may or may not be pain and pus. A *doctor's care is needed.*

Rh incompatibility This is when the mother has Rh negative blood and the father has Rh positive blood. The difference in blood types may cause problems when the baby is born. The eyes, ears, or brain may be damaged.

rubella This illness is often called *German measles.* If caught during the first three months of pregnancy, the baby may be deaf and/or blind. There may be other problems such as heart trouble.

Tay-Sachs disease (cerebral sphingolipidosis) A problem in children which includes loss of vision, mental ability, and muscle control.

NOTE: A doctor can tell you when eyes and ears need medical care. He may send a person to an eye specialist or to an ear-nose-throat specialist.



RELATED PROBLEMS

aphasia Trouble in speaking or understanding speech. Reading and writing may also be affected. It is due to damage to the brain.

apraxia Trouble in speaking due to damage to the brain, but not to the nerves or muscles. The tongue and lips can move normally except when trying to speak.

dysarthria Trouble speaking due to damage to the brain or nerves. There is also a problem in chewing and swallowing.

dyslexia Trouble in reading or understanding what is read. It is due to a minor brain problem and is one type of *learning disorder.*

learning disorder (learning disability) Trouble in reading, arithmetic, or some other kind of schoolwork. It can be due to a physical problem.

mental retardation Lack of normal mental skills from birth on. It includes a lack of normal social and self-help skills.

self-stimulation An action such as moving the hands near the eyes or rubbing the eyes. It is done over and over. Blind children do this to cause changes in what they see. These actions are also called mannerisms.

ALL THE WORDS IN THIS BOOKLET

ABR (auditory brainstem response) See *BSER.*

accommodation See page 13.

achromatopsia Total color blindness. Having no sight for color.

acoustic reflex threshold The loudness of a sound that just barely makes the muscles in the *middle ear* work.

acuity Sharpness of vision. It may also refer to sharpness of hearing.

acute Short and severe (when referring to an illness). Not *chronic.*

NOTE: You may find the meanings in this booklet are too simple. You can find out more about many of the words in a standard dictionary or a medical dictionary. A basic book on audiology, optometry, or education of children with hearing or vision loss may also help.

A

AD (Latin, auris dextra) Right ear.

adaptation Changes in the *iris* and *retina* caused by a change in light. As it gets darker, the iris opens farther to let more light inside the eye.

adventitious (problem) Not present at birth. Acquired.

air conduction One path of sound to the *inner ear.* Sound is carried through the air to the eardrum. Then it passes through the bones of the *middle ear* to the inner ear.

albinism Lack of some or all color in the eyes, skin, and hair. Often there is also *astigmatism, photophobia,* and *nystagmus.*

amblyopia Dimness of vision without apparent damage to the eye. The problem is not corrected by glasses.

amblyopia ex anopsia Some loss of vision because of not using the eye.

aniridia Absence of the *iris* of the eye.

anophthalmia (anophthalmos) Absence of the eyes from birth.

anoxia Lack of oxygen. This may cause damage to the brain.

aphakia Absence of the *lens* of the eye.

aphasia See page 25.

aplasia The absence of an organ at the time of birth. It can also refer to an organ which has not developed completely.

Apple, House, Umbrella Symbol Vision Test See page 16.

apraxia See page 25.

aqueous (humor) A clear liquid between the *lens* and the *cornea* of the eye.

AS (Latin, auris sinistra) Left ear.

astigmatism Lack of clear vision due to the shape of the *cornea* and *lens* of the eye.

atresia Lack of an opening in a canal that is normally open. Atresia of the ear canal causes a *moderate loss of hearing.*

atrophy Wasting away of a part of the body.

AU (Latin, auris utraque) Both ears; each ear.

NOTE: People working with hearing and vision loss are in Booklet #3.

---

audiogram See page 7.

audiometer See page 7.

auditory Having to do with the sense of hearing.

auditory nerve See pages 4 and 6.

auricle The part of the ear that you can see. The opening of the ear canal is in the auricle.

binocular Using both eyes at the same time.

blind See page 19.

blindism An action such as moving the head from side to side or swaying the body back and forth. Blind children often do these things.

bone conduction One path of sound to the *inner ear.* Sound passes from the outside air through the skull to the inner ear. Sound carried by bone conduction does not go through the *outer ear* and *middle ear.*

BSER Audiometry (brainstem evoked response) A test of hearing by picking up changes in brain waves. This test can be given to a person who cannot say when he hears a sound. The drawing below shows a brain wave caused by a clicking sound.



cardiac defect A heart problem.

cataract See page 21.

central (1) Of the brain and the spinal cord. (2) At or near the center.

central hearing loss (central deafness, central auditory problem, or central auditory disorder) A hearing problem which is caused by damage to the brain.

central vision Sight near the center. Vision is sharper at the center than at the sides.

NOTE: People working with hearing and vision loss are in Booklet #3.

C

central vision test A measure of how well a person sees at the center of the *retina.*

central visual problem A defect near the center of the *retina.*

cerebral palsy Movement of the muscles in abnormal patterns. The movements cannot be controlled by the person who is affected. They are caused by damage to the brain.

cerumen Earwax; the wax in the ear canal.

chorioretinitis (choroidoretinitis) *Inflammation* of the *retina* and the choroid. The choroid is the layer between the retina and the *sclera.*

chronic Happening again and again over a long period of time. A disease or problem that comes back often is chronic.

CMV See page 22.

cochlea See pages 4 and 6.

coloboma A defect of the eye. The defect may be of the eyelid, *lens, iris, retina,* or *optic nerve.*

color-blindness (color deficiency) Trouble identifying one or more colors.

color vision test A test of how well a person sees different colors.

compliance (of the ear) The ease with which sound passes through the *middle ear.* Compliance is measured by *immittance audiometry.*

conditioned response A signal that a person is taught to give when a sound is heard.

conductive hearing loss A hearing problem caused by damage to the *outer ear* or the *middle ear.* This type of hearing loss can usually be helped by a doctor.

cones See page 14.

congenital (problem) Present before or at birth.

congenital syphilis See page 22.

conjunctiva The skin (mucous membrane) on the inner side of the eyelids. Also, it is the outer covering of the front of the eyeball.

NOTE: Programs for deaf and blind people are listed in Booklet #3.

---

conjunctivitis *Inflammation* of the *conjunctiva.*

COR (conditioned orienting response or reflex) See *VRA.*

cornea See pages 12 and 13.

corneal dystrophy A disease of the *cornea.* The problem is caused by *heredity* and it gets worse as time passes.

corneal scar A mark left on the *cornea,* the clear cover of the front of the eyeball. It may be caused by a cut or infection.

crystalline lens The clear *lens* of the eye.

cytomegalovirus infection See *CMV* on Page 22.

dB See *decibel.*

deaf Having no hearing of real value for understanding speech. Or having no hearing at all.

deaf-blind Having both a serious hearing loss and vision loss. Refers to a person who is deaf and blind.

decibel (dB) A unit for measuring sound. The number of decibels tells how loud a sound is or how great a hearing loss is.

degeneration Wearing out of a part of the body.

depth perception The ability to see whether an object is nearby or far away.

detached retina The separation of the *retina* from the middle layer of the eyeball.

diabetes A problem of too little insulin. (Insulin helps the body use sugar.) Diabetes causes sugar in the blood and urine, hunger, thirst, and loss of weight.

diabetic retinopathy Changes in the *retina* because a person has had *diabetes* for years.

diplopia Double vision. Seeing two things when there is only one.

discomfort level (discomfort threshold) See page 7.

NOTE: Treatments for hearing and vision problems are in Booklet #3.

---

discrimination See page 8.

distance vision The ability to see objects or print at a distance.

distractibility Trouble paying attention. A person's attention goes from one thing to another around him. A child with brain damage may be distractible.

dysarthria See page 25.

dyslexia See page 26.

dysplasia Abnormal development of an organ before the child was born.

dystrophy Wasting away of a part of the body.

eardrum See page 5.

ECoG (ECochG) A test of hearing in which a person does not need to tell what he can hear. A wire in the *outer ear* picks up electric waves from the *inner ear.*

encephalitis *Inflammation* or swelling of the brain. It is sometimes called sleeping sickness and it may cause brain damage.

enucleation (of the eyeball) Taking out the eyeball.

ERA (evoked response audiometry) A test of hearing that measures electric activity in the nerve of hearing and the brain. It includes *ECoG*, which measures nerve responses, and *BSER*, which measures brain stem responses.

ERG (electroretinogram) A test of vision that measures the response of the nervous system to light. It can keep track of the progress of *retinitis pigmentosa*.

esotropia A problem with the muscles of the eye. The eye turns in toward the nose. (Sometimes called cross-eye.)

E symbol test See page 16.

etiology The cause or causes of a disease.

Eustachian tube See pages 4 and 5.

exotropia A problem with the muscles of the eye. The eye turns out toward the side. (Sometimes called walleye.)

external examination (of the eye) A check of how well the eye muscles work. A look at the outside of the eye.

NOTE: Hearing aids are in Booklet #3.

farsighted Trouble reading and seeing things close by.

field of vision The space where objects are seen clearly without moving the eyes.

fluctuating (loss or problem) Changing. Getting better and worse again and again.

frequency (of a sound) The pitch of a sound. Sometimes hearing is better for some pitches than for others.

fusion The blending of what is seen by the two eyes into one picture.

gain The increase in hearing provided by a hearing aid. It is measured in *decibels* (dB).

genetics The science that deals with *heredity.*

German measles See page 22.

glaucoma See page 22.

glaucoma test See page 17.

hair cells A part of the *inner ear.* The hair cells may be injured by some diseases.

hard of hearing Having poorer hearing than the normal person. But having better hearing than a *deaf* person.

hearing impaired Having a hearing loss of any degree. This includes the *hard-of-hearing* person and the *deaf* person.

heredity See page 23.

high fever Body temperature that is much higher than normal. It may cause hearing loss or vision loss.

hyperactive Too active and restless. Moving almost all the time.

hyperkinetic *Hyperactive.*

hypermetropia Being *farsighted.* Trouble seeing things that are nearby.

hyperopia Being *farsighted.* Trouble seeing things that are nearby.

immitance audiometry See page 8.

NOTE: Vision aids are in Booklet #3.

I

impacted cerumen A plug of earwax in the ear canal. The plug can cause a *mild loss of hearing*, or make a hearing loss worse. A wax plug can be removed by a doctor.

impedance audiometry See page 8.

incus See pages 4 and 5.

inflammation A condition of redness, pain, heat, and swelling. These may be due to an injury or an infection.

inner ear See page 6.

intensity (of a sound) The loudness of a sound.

internal examination (of the eye) A look at the inside of the eyeball. An *ophthalmoscope* is used to light up and magnify the inside of the eye.

interstitial keratitis *Inflammation* of the middle layer of the *cornea*. The problem is usually caused by *congenital syphilis*.

iris See pages 12 and 13.

iritis *Inflammation* of the *iris*, the colored ring in the center of the eye.

keratitis *Inflammation* of the *cornea*, the clear cover over the front of the eyeball.

keratoconus An abnormal shape of the *cornea*. It sticks out like a cone from the front of the eyeball.

lazy eye An eye which can work all right but does not. The lazy eye may cause the other eye to be overworked.

learning disorder (learning disability) See page 26.

legally blind See page 19.

lens See pages 12 and 13.

light perception See page 20.

light projection See page 20.

localization Knowing where a sound comes from. This is done by turning your head, and by listening with two ears.

low vision See page 18.

macula A small space on the *retina* where vision is very sharp.

NOTE: Words about training are in Booklet #3.

M

macular degeneration Loss in the sharpness of vision at the *macula.*

malleus See pages 4 and 5.

mannerism See self-stimulation on page 26.

Marfan's syndrome A condition which may include a vision defect. The condition is caused by *heredity* and in rare cases it may include a hearing loss.

masking A noise that prevents hearing in one ear when testing the other ear.

mastoiditis *Inflammation* of the mastoid, the part of the skull that bulges out behind the ear.

maternal rubella *German measles* during pregnancy. See page 24.

meningitis See page 23.

mental retardation See page 26.

microphthalmia (microphthalmus) One or both eyeballs are smaller than the normal size.

middle ear See page 5.

middle ear pressure See page 8.

mild loss of hearing See page 10.

moderate loss of hearing See page 10.

monocular Using only one eye. Having only one eye.

myopia Being *nearsighted.* Trouble seeing things that are far away.

nearsighted Trouble seeing things that are far away. A person who is nearsighted has better sight for reading than for distant objects.

near vision Sight for print or objects that are a couple feet or so from the eyes.

nerve deafness A hearing problem due to damage to the *eighth nerve.* Sometimes nerve deafness is used to mean damage to the *cochlea* or the *inner ear.*

night blindness Trouble seeing at night and in dim light.

NOTE: Words about teaching are in Booklet #3.

noise induced hearing loss A problem in hearing caused by loud noise. The hearing loss usually begins in the higher pitches.

nystagmus Rapid movement of the eyeball, usually from side to side. The movement cannot be controlled.

object perception See page 20.

ocular Of the eye; for the eye.

OD (Latin, oculus dexter) Right eye.

ophthalmoscope See page 17.

ophthalmoscopic examination Looking at the eye using a special device, the *ophthalmoscope*. It magnifies and shines light on the outside and inside of the eyeball.

optic atrophy Wasting away of some part of the eye.

optic nerve See pages 12 and 14.

OS (Latin, oculus sinister) Left eye.

ossicles The tiny bones in the middle ear. They are named *malleus*, *incus*, and *stapes*.

otitis See page 23.

otitis externa An *inflammation* of the ear canal. Also called swimmer's ear.

otitis media An *inflammation* of the *middle ear.*

otoadmittance audiometry A test of how well the *middle ear* works. Same as *immitance audiometry.*

otosclerosis A disease of the *middle ear.* New bone, formed around the *stapes,* causes a loss of hearing.

otoscopic examination Looking in the ear canal using a special device, the otoscope (auriscope). It magnifies and shines light in the ear canal.

ototoxic (drug) Refers to a drug that can damage hearing.

OU (Latin, oculus uterque) Both eyes; each eye.

outer ear The part of the ear we can see. The outer ear includes the ear canal but not the eardrum.

P

partially sighted See page 19.

perforated tympanic membrane An eardrum with a hole in it. The hole may have been made by *otitis media* or a foreign object.

peripheral vision (or field) Sight at the sides. Peripheral vision is not as sharp as *central vision.*

perseveration Doing something over and over for no reason. This may be due to brain damage.

photophobia Bothered a great deal by light.

play audiometry See page 9.

pointing E test See page 16.

premature Born early or before full term. Also refers to a baby with low weight at birth.

presbycusis (presbyacusis) Hearing loss due to old age.

presbyopia Vision loss due to old age.

profound loss of hearing See page 11.

progressive (loss or disease) Getting more severe.

pupil See pages 12 and 13.

pure tone See page 9.

purulent Like pus. Giving off pus.

recruitment A problem with sound getting too loud too fast. Damage to the *inner ear* can cause recruitment.

recurrent Occurring again and again.

refraction (of the eye) The bending of light rays as they go through the clear part of the eye. This causes what you look at to become small and sharp on your *retina.*

retarded Delayed. Slowed down in development.

retina See pages 12 and 14.

retinitis pigmentosa *Inflammation* and wasting away of the *retina.*

retrolental fibroplasia Scar tissue on the back of the *lens* of the eye. Because the tissue is not clear, it keeps light from reaching the *retina.*

Rh incompatibility See page 23.

rods See page 14.

rubella See page 24.

SAT See *speech detection threshold.*

sclera See pages 12 and 13.

SDT See *speech detection threshold.*

self-stimulation See page 26.

semicircular canals See pages 4 and 6.

sensitivity (of hearing or vision) Keenness; sharpness.

sensori-neural hearing loss A hearing problem caused by damage to the *inner ear* or the nerve of hearing.

sequela (sequel) A problem that follows a disease. Usually the problem is the result of the disease.

sequelae More than one problem following a disease.

severe loss of hearing See page 11.

Snellen test See page 17.

SPAR (sensitivity prediction from acoustic reflexes) A test that tells about hearing by measuring *acoustic reflex thresholds.*

speech detection threshold (SDT; or speech awareness threshold, SAT) The loudness of speech when a person can barely hear it. This is softer than the level where it can barely be understood.

speech reception threshold See *spondee threshold* on page 9.

spondee threshold See page 9.

squint See *strabismus.*

SRT See *spondee threshold* on page 9.

ST See *spondee threshold* on page 9.

stapes See pages 4 and 5.

strabismus One eye may turn in or out. (Sometimes called cross-eye, walleye, or squint.)

stye (sty) *Inflammation* of a gland on the edge of the eyelid.

suppurative Forming pus. Giving off pus.

S—T

syphilis See *congenital syphilis* on page 22.

Tay-Sachs disease See page 24.

threshold The softest sound that a person can hear. The weakest light that a person can see.

tinnitus Ringing in the ear. Sometimes the sound is a roaring, chirping, or throbbing.

totally blind See page 20.

toxoplasmosis A disease that usually damages the eyes if present at or before birth. The disease may also damage the brain.

trauma A wound or an injury.

tumbling E test See page 16.

tunnel vision Loss of sight around the sides. Vision is like looking through a tube.

tympanic membrane The eardrum. See pages 4 and 5.

tympanogram A drawing that shows how well sound is carried through the middle ear. During the test, air is pumped in the ear canal and then pumped out. The drawing at the top of page 51 is a tympanogram.



ULL (UCL) Uncomfortable loudness level. See *discomfort level* on page 7.

unaided (hearing) Without the use of a hearing aid.

Usher's syndrome Loss of vision and hearing. Begins with trouble seeing at night in the early teenage years. It includes *tunnel vision* and *retinitis pigmentosa.*

VER (visually evoked response) A way to measure vision by picking up changes in brain waves. This test can be given to a person who cannot say when he sees something.

vertigo A feeling of spinning. A feeling of being dizzy or lightheaded.

vestibular Having to do with the sense of balance and motion.

visual acuity The ability to see letters or pictures.

V

visual acuity of 20/200 See page 20.

visual field The space where objects are seen clearly without moving your eyes.

visual field of 20° See page 20.

visual field test Finding out exactly where your eye can see while you stare at one spot.

visually impaired See page 19.

vitreous (humor) See pages 12 and 14.

VRA (visual reinforcement audiometry) A test of hearing that uses sound and light. If a child looks at a light when he hears a sound, the light is turned on.

WORDS USED TO DESCRIBE A PERSON OR HIS VISION
(with Glasses if They Help)

Normal — without Glasses	Normal — with Glasses	Abnormal — Good Usable Vision Left	Abnormal — Some Usable Vision Left	Abnormal — No Vision at All
Good Vision	Good Corrected Vision	Low Vision	Blind	Blind
Normal Vision	Normal Corrected Vision	Visually Impaired	Legally Blind	Legally Blind
Average Vision		Partially Sighted	Object Perception	No Object Perception
			Light Projection	No Light Perception
			Light Perception	Totally Blind

See pages 18 to 20 for more about some of these words.

A JOURNEY
OF A THOUSAND MILES
MUST BEGIN
WITH A SINGLE STEP.
— LAO TZU

☐ Additional copies of this booklet are available from

Southeast Regional Center
for Deaf-Blind Children
P. O. Box 698
Talladega, AL 35160
USA

☐ Funded by

Bureau of Education
for the Handicapped
United States Office of
Education
Title VI-C
Law 91-230